



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBE117-15004W6-7
Job Sheet 191224



Part No: RBE117-15004W6-7

Job Qty: 5 pcs

Part Name: Tube 2



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/25/19

Job Tracking No:

Due Date: 4/15/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBE117-15004W6 Rev.1 IPP Rev. A 18.12.20 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
100	SL-154 - 1	5 pcs	4/15/19	4/15/19	0.00	0.50	SL-154 - 1	JB 19-04-20
110	QC 2	5 pcs	4/15/19	4/15/19	0.00	0.00	QC 2 - 1	
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	
							QC 2 - 32	
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 39	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 54	
							QC 2 - 56	
							QC 2 - 57	
							QC 2 - 62	JB 19-04-20
							QC 2 - 63	
							QC 2 - 8	
120	QC 8	5 pcs	4/15/19	4/15/19	0.00	0.00	QC 8 - 12	

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com



Container No: S173642

Part: RBE117 - 15004W6 - 7

Job No: 191224

Serial No/Batch: S173642

Revision: 1

Inspector:

Exp Date:

Instructions:

Plex 2/25/19 9:42 AM Dart.lajeunesse.marie

DAS
62
9-89

DAS
62
9-89

				QC 8 - 14		2/19/04/23
				QC 8 - 17		
				QC 8 - 20		
				QC 8 - 25		
				QC 8 - 3		
				QC 8 - 32		
				QC 8 - 33		
				QC 8 - 35		
				QC 8 - 39		
				QC 8 - 4		
				QC 8 - 44		
				QC 8 - 45		
				QC 8 - 49		
				QC 8 - 58		
				QC 8 - 8		
				QC 8 - 9		
				QC 8 - 68		
125	Outsource - 1 - Heat Treat	5 pcs	4/15/19	MEI001-VC		04/23/2019
130	Outsource - 13 - Zinc Plating	5 pcs	4/15/19	GRO002-VC		04/30/2019
140	Packaging 2-1 - Receive - B4B	5 pcs	4/15/19	0.00 0.00	Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 - B4B	
					Packaging 2 - 20 - B4B	
					Packaging 2 - 21 - B4B	
					Packaging 2 - 22 - B4B	
					Packaging 2 - 23 - B4B	
					Packaging 2 - 24 - B4B	
					Packaging 2 - 25 - B4B	
					Packaging 2 - 26 - B4B	
150	QC 6	5 pcs	4/15/19	0.00 0.00	QC 6 - 42	
					QC 6 - 9	
					QC 6 - 68	
					QC 6 - 61	
160	Packaging 3-1 - Stock - B4B	5 pcs	4/15/19	0.00 0.00	Packaging 3 - 1 - B4B	
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	

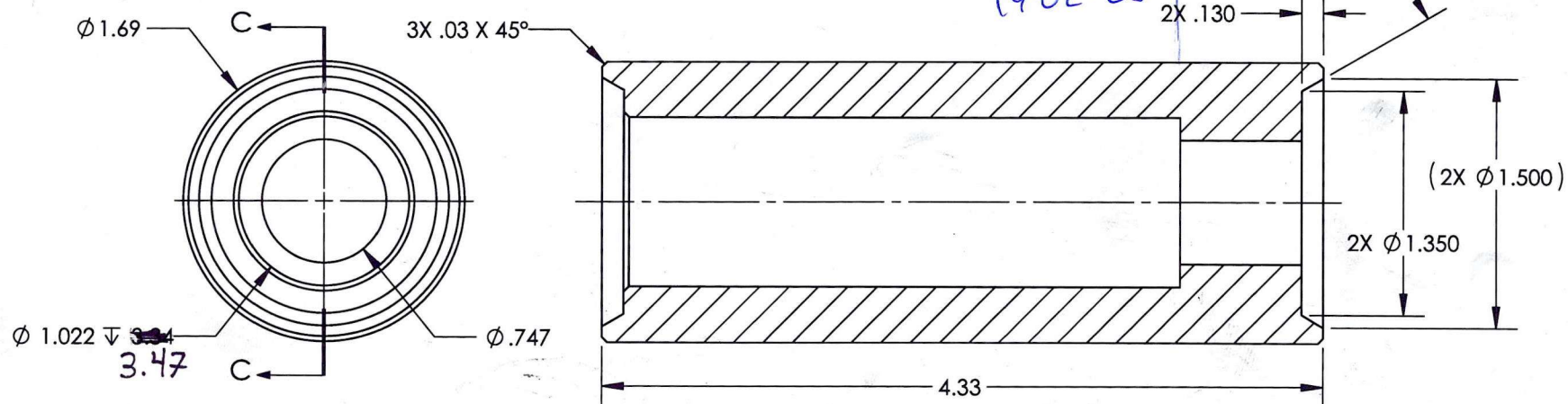
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
170 QC 21 - SA	5 pcs	4/15/19	0.00 0.00	QC 21 - SA - 21	21
				QC 21 - SA - 70	21
Part Op 100 - 1-Machine as per folio FC556 FOLIO REV: <u>AA</u> DWG REV: <u>1</u> 2-Debur Descriptions: 125 - 1-Issue P/O; <u>HB 043279</u> RC 50-56 2-Bead blast 3-Material type; <u>4140</u> 4- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER HEAT TREAT to ship directly to SURFACE FINISH*** 130 - -Issue P/O ; _____ -Zinc plate, ASTM B633 TYPE 1 SC2 -Color; Clear -Material type; O1 -Certificate of Conformity is required 140 - Certificate of Conformity is required					
Job BOM					
Part / Item	Component Name	Quantity	Operation	Container	
MT-O1-R1.750	Tool Steel Round Bar 1.750 dia.	1.8900 ft (.378 ea)	100-SL-154 - 1	<u>5092501</u>	
Job Allocations					
Operation	Component Part	Required	Inventory	Allocated	
100-SL-154 - 1	MT-O1-R1.750	2	9	0	
Part Specifications					
Specifications could not be found.					

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED

SHOP COPY
RETURN TO
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 191224 MJS
1902-25



SECTION C-C

(-7)
TUBE 2

DART AEROSPACE	
TITLE PUSH OUT/PRESS IN TOOL	
DWG NO. RBE117-15004W6-7	REV 1
MAT'L O1 RC 50-56 ZINC PLATE ASTM B633 TYPE I SC 2	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° X ± .1 SURFACES = 125°
DRAWN BY: MACKOVJAK CHECKED: CLOUGH OPPS APPR: ANDERSON QA APPR: LINDSAY APPROVED: GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
SCALE 1:1	DATE 8/17/2016
SHEET 5 OF 12	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: <u>191224</u> Part No. <u>RBE117-15004W6-7</u> <u>REV 1</u>		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐		DEPARTMENT/PROCESS Skid-tube ☐ Machining ☒ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date : <u>4/16/2019</u>		Sequence #:		QTY Affected :		MRB (QSI042) WIP	
Description Work Order Deviation				Disposition			
DIMENSION $\phi 1.022 \pm 3.34$ IS MACHINED AT $\phi 1.022 \pm 3.47$ DEPTH 3.47 IS ACCEPTABLE FOR THIS BUILD				THIS DEVIATION IS ACCEPTABLE TO USE AS IS FIT FORM AND FUNCTION WILL BE AS ORIGINALLY INTENDED			
Completed By				Lead hand / Supervisor			
QC / QA Coordinator				BAS 68 9-89 MAY 06 2019			
Root Cause Operator ☐ Manufacturing Process ☒ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☒ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread					
Other/Details:							



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043279



Supplier: ATL002-VC
Atlantic Heat Treat 2001
401 Frankcom
Ajax
ON
L1S 1R4 Canada
Phone: 866 257 6395

Attention: Ananth, Nimmy

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB043279

PO Date: 4/23/19

Due Date: 4/26/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	191459	C10-4-8	Lock Bushing 1-Issue P/O to ATLANTIC HEAT TREAT 2001 ; P/O RC 37-40 2-Bead blast 3- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER HEAT TREAT to ship directly to SURFACE FINISH*** 4140 round bar 1.00 / M4140H-R1.000	Firmed	-	4/30/19	39 pcs	0 pcs	39 pcs	\$1.923/pcs	\$75.00

Line Item Note *** NEED BACK APRIL 26,2019 ***
*** RUSH - RUSH - RUSH ***



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043279



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
2	191224	RBE117-15004W6-7	Tube 2 1-Issue P/O; RC 50-56 2-Bead blast 3-Material type; O1 4- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER HEAT TREAT to ship directly to SURFACE FINISH*** TOOL STEEL ROUND BAR 1.750 DIA / MT-O1-R1.750	Firmed	-	4/30/19	6 pcs	0 pcs	6 pcs	\$12.50/pcs	\$75.00
				X6		APR 30 2019				DP	DAS 68 9-89
3	193069	C2-3-2	Latch Roller Pin 1-Issue P/O; RC 53-56 2-Bead blast 3-Material type; 4340 4- Certificate of Conformity is required ***NOTE*** DROP SHIP TO FINISHER HEAT TREAT to ship directly to SURFACE FINISH*** MT-4340-R-0.500 / AISI 4340 ROUND BAR 0.500	Firmed	-	4/30/19	27 pcs	0 pcs	27 pcs	\$2.777/pcs	\$74.98
				X27		APR 30 2019				DP	
Grand Total:											\$224.98

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retension of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Atlantic Heat Treating (2001) Ltd

Order No.: 165619

Ship Date: 25/4/2019

Shipping Ticket

Sold To: 1448
DART AEROSPACE LTD.
1270 ABERDEEN ST

HAWKESBURY ON K6A 1K7

Ship To: 162569
DART AEROSPACE LTD.
1270 ABERDEEN ST

HAWKESBURY ON K6A 1K7

Page 1 of 1

Purchase Order Number	Packing List No	Customer Job No	Route	Carrier
POHB043279				

Quantity	Part No. / Part Name / Part Description	Pounds
----------	---	--------

6 PCS MATERIAL 01
SANDBLAST AND HEAT TREAT TO 50-56RC
C OF C, PRT# RBE117-15004W6-7, JOB# 191224

Container Type	# Of Containers	Cust Cont Id	Container Type	# Of Containers	Cust Cont Id
BOX	1				

NOTICE: OUR LIABILITY IS LIMITED TO OUR INVOICE CHARGES ONLY

Shipped Complete

Quantity Shipped: 6

Pounds Shipped: 11.00

Order No.: 165619

Shipped Complete

Quantity Shipped: 6.00

Received By:

Date:

Pounds Shipped: 11.00

Sold To: DART AEROSPACE LTD.

Shipped ON: 04/25/2019

Certification

Date: 04/29/2019

Entry Date: 04/25/2019

Page: 1 of 1

To:DART AEROSPACE LTD.
1270 ABERDEEN ST

Purchase Order No.: POHB043279

Packing List No.:

HAWKESBURY ON K6A 1K7

Material: 01

We are pleased to provide you with the following Certificate of Compliance.

Quantity	Part Number / Part Name / Part Description	Pounds
6	6 PCS MATERIAL 01 SANDBLAST AND HEAT TREAT TO 50-56RC C OF C, PRT# RBE117-15004W6-7, JOB# 191224	11

Insp. Type	Scale	Minimum	Maximum	Number	Other
Customer Requirements:					

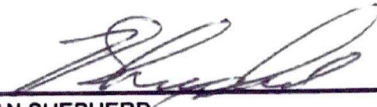
Harden rockwell

Results:

Harden ROCKWE 50. 56. 54. TESTED AS PER SAMPLNG PLAN
HEAT TREATED TO 54 RC AS PER CUSTOMER REQUEST

DAS
68
9-89

STATEMENT OF LIMITED LIABILITY (PLEASE READ CAREFULLY) ALL WORK IS ACCEPTED SUBJECT TO THE FOLLOWING CONDITIONS: It is recognized that even after employing all the scientific methods known to us, hazards still remain in metal treating. THEREFORE, OUR LIABILITY SHALL NOT EXCEED TWICE THE AMOUNT OF OUR CHARGES FOR THE WORK DONE ON ANY MATERIAL (FIRST TO REIMBURSE FOR THE CHARGES AND SECOND TO COMPENSATE IN THE AMOUNT OF THE CHARGES), EXCEPT BY WRITTEN AGREEMENT SIGNED BY THE METAL TREATER. THE CUSTOMER, BY CONTRACTING FOR METAL TREATMENT, AGREES TO ACCEPT THE LIMITS OF LIABILITY AS EXPRESSED IN THIS STATEMENT TO THE EXCLUSION OF ANY AND ALL PROVISIONS AS TO LIABILITY ON THE CUSTOMER'S OWN INVOICES, PURCHASE ORDERS OR OTHER DOCUMENTS. IF THE CUSTOMER DESIRES HIS OWN PROVISIONS AS TO LIABILITY TO REMAIN IN FORCE AND EFFECT, THIS MUST BE AGREED TO IN WRITING, SIGNED BY AN OFFICER OF THE TREATER, IN SUCH EVENT, A DIFFERENT CHARGE FOR OUR SERVICES REFLECTING THE HIGHER RISK TO TREATER, SHALL BE DETERMINED BY THE TREATER AND CUSTOMER. THE TREATER MAKES NO EXPRESS OR IMPLIED WARRANTIES AND SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF THE FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, AS TO THE PERFORMANCE OF CAPABILITIES OF THE MATERIAL AS HEAT TREATED, OR THE HEAT TREATMENT. THE AFOREMENTIONED LIMITATION OF LIABILITY STATED ABOVE IS SPECIFICALLY IN LIEU OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND OF ANY OTHER SUCH OBLIGATION ON THE PART OF THE TREATER. No claim for shortage in weight or count will be entertained unless presented within five (5) working days after receipt of materials by customer. No claim will be allowed for shrinkage, expansion, deformity, or rupture of material in treating or straightening, except by prior written agreement, as above, nor in any case for rupture caused by or occurring during subsequent grinding. Whenever we are given material with detailed instructions as to treatment, our responsibility shall end with the carrying out of those instructions. Failure by a customer to indicate plainly and correctly the kind of material (i.e., proper alloy designation) to be treated, shall cause an extra charge to be made to cover any additional expense incurred as a result thereof, but shall not change the limitation of liability stated above. Customer agrees there will be no liability on the treater in contract for any special, indirect or consequential damages arising whatsoever, including but not limited to personal injury, property damage, loss of profits, loss of production, recall or any other losses, expenses or liabilities allegedly occasioned by the work performed on the part of the treater. It shall be the duty of the customer to inspect the merchandise immediately upon its return, and in any event claims must be reported prior to the time that any further processing, assembling or any other work undertaken. OUR LIABILITY TO OUR CUSTOMERS SHALL CEASE ONCE ANY FURTHER PROCESSING, ASSEMBLING OR ANY OTHER WORK HAS BEEN UNDERTAKEN ON SAID MATERIAL. No agent or representative is authorized to alter the above conditions, except by writing duly signed by an officer of treater


KEAN SHEPHERD
QUALITY CONTROL
ATLANTIC HEAT TREATING 2001 LTD



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043340



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

Attention: Grenon, Sylvie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB043340

PO Date: 4/30/19

Due Date: 5/7/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pynt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	191224	RBE117-15004W6-7	Tube 2 -Issue P/O : -Zinc plate, ASTM B633 TYPE 1 SC2 -Color; Clear -Material type; O1 -Certificate of Conformity is required	Firmed	-	5/7/19	6 pcs	0 pcs	6 pcs	\$15.00/pcs	\$90.00
											68 9-89

Grand Total: \$90.00

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 5/1/19 9:25 AM Dart.Guerin.Kimberley



Certificat de Conformité / Certificate of Compliance

(018870-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

018870- 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courrier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
30-Apr-2019		Jessie Boisvert		POHB043340				
#Ligne Line#	No. de Série / # Pièce Part Number /Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	RBE117-15004W6-7 Rev.	RBE117-15004W6-7 01 -ZINC-CLEAR TRI [ZINC CLEAR TRIVALENT] 24 HRS ASTM B633 TYPE 1 SC2	ZINC MIN-CHG	6	6	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.